CHAPTER VIII

SUMMARY AND CONCLUSION

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for most women it is associated with suffering, ill-health and sometimes even death. Maternal and infant health is not much conceivable in modern India. The maternal and infant health status varies from region to region, because it is determined not only by biological factor or medicinal factor but also it accompanies with socio-cultural factor, environmental factor, economic factor, family background and availability and utilization of health facility in the region.

This study is an attempt to explore the maternal and infant health status and major health morbidity and also to find out the causes of it. The objectives of this study are as follows:

1. To study women’s role during the maternity period.
2. To analyze the health status of maternal women in terms of their health care.
3. To examine the health status of infants in terms of their health care.

Agastheswaram PHC was selected for this study by Judgment Sampling Method. It has 7 Health Sub-Centres (HSC). All these 7 sub-centres were taken for the study. The sample population was selected based on Stratified Random Sample with proportionate allocation. Interview Schedule was administered to collect primary data from the sample population. The data were analyzed by appropriate statistical tests, particularly average, chi-square and analysis of variance.
Summary of the Findings

The study discloses that all the respondents are females. One-third of them (33.1 per cent) belong to the age group of 24-26; 29.8 per cent of them are in 27-29 age groups; one-fourth of them (25.3 per cent) belong to the age group of above 30 years; and 11.8 per cent of them fall into the age group of below 23 years. The average age of the respondents is worked out to be 27.3 years.

This study shows that a majority of the respondents (60.1 per cent) belong to Hindu religion, whereas over one-third of them (39.3 per cent) belong to Christian religion. Only two of them (0.6 per cent) belong to Islam. It is found that more than two-thirds of the respondents (69.9 per cent) belong to the Backward Class; over one-fifth of them (21.1 per cent) belong to the Most Backward Class; only 5.4 per cent of them are from Scheduled Caste and a negligible proportion of them (3.7) belong to Forward Class. This indicates that the sample population is very much characterized by the Backward Class people.

The study presents that more than two-thirds of the respondents are educated; about one-third of them are literates and only 0.8 per cent of them are illiterates. More than two-thirds of the respondents (69.1 per cent) earn an income ranging from Rs.3000 to Rs.5000. Close to one-fifth of them (19.1 per cent) have an income of more than Rs.5000. And the remaining 11.8 per cent of them have a family income of less than Rs.3000. their average monthly income is Rs.4100.45.

It is clear from the study that more than half of the respondents’ husbands (51.1 per cent) are working in private sectors. Two-fifths of them (40.4 per cent) are labourers
who are daily wage earners in unorganized sectors. The remaining 8.4 per cent of them are employed in the Government sectors.

It is evident that the prevalence of nuclear family system in the area under study is predominant as it is more than twice as much as the joint family. The average family size (4.4) of this present study is very close to the average family size at State level (4.3) and lesser to National level (5.3).

The study discloses that a overwhelming majority of the respondents (87.4 per cent) got married after completing 20 years. It has been proved by the statistical analysis that there is a significant relationship between the community of the respondents and their age at marriage. Similarly, there is a significant relationship between the community of the respondents and their kin relationship with their husbands.

The study exhibit that over a majority of the respondents (59.7 per cent) is irregular in taking the iron and folic acid tablets due to side effects. Their pessimistic thinking, smell of the tablet, disinterest, irregular visit of nurses to their village, late checkup and forgetfulness are also the causes of not taking the tablets regularly.

An overwhelming majority of the respondents (88.7 per cent) get all types of advice during their pregnancy, whereas the rest of them receive advice pertaining to certain specific aspects of pregnancy. In one way or other, all the respondents receive some advice about pregnancy.

It is clear from the analysis that there is no significant relationship between the regular intake of nutritious food by the respondents and their age, i.e. the age of the respondents does not influence their intake of regular items of nutritious food. In a similar way, there is no significant relationship between the items of nutritious food taken
by the respondents on the one hand and their educational status and monthly family income on the other hand. But there is a significant relationship between the nutritious food taken by the respondents and their community.

The study presents that close to three-fourths of the respondents (73.0 per cent) take iodized salt and remaining 27 per cent of them do not do so during their last pregnancy. Three-fourths of pregnant women (74.7 per cent) sleep in the day time during their last pregnancy, whereas the remaining one-fourth of them (25.3 per cent) do not do so.

Close to one-fourth of the respondents (24.1 per cent) experience discomfort with leg pain while sleeping at night; 19 per cent of them feel fatigue, 17.7 per cent of them are afraid of delivery fear, 13.9 per cent of them have stomach discomfort, 11.4 per cent of them have the problem of vomiting, 7.6 per cent of them encounter other difficulties such as blood pressure, fits, caring elder child and allergy and 6.3 per cent of them have breathing problem while sleeping at night.

It is understood from the analysis that about two-thirds of the pregnant women (66 per cent) attend to household chores without anyone’s support, whereas about one-third of them do so with the support of mothers-in-law, mothers, husbands and other relatives. However it is found that some of them who do the household works without anyone’s support are suffering from health problems.

Close to two-thirds of the respondents (62.4 per cent) say that they share the role with their husbands in deciding the sex of their child and birth interval. Three-fourths of the respondents (75.2 per cent) decide to go with the birth interval of below 3 years, whereas one-fourths (24.8 per cent) of them decide to have the birth interval of above 3
years. It is found that low level of education, ignorance and unaware of maternal and infant health make the respondents follow less birth interval.

The respondents receive advice about various aspects such as breast feeding (36.8 per cent), careful about umbilical cord (9.6 per cent), keeping the baby warm (6.4 per cent), birth spacing (2.4 per cent), avoidance of traditional practices (3.2 per cent) and other aspects (35.2 per cent) including cleanliness of the baby, periodical health checkup, vaccination, administering medicine (6.4 per cent).

Over one-fifth of the respondents (21.3 per cent) say that their roles in domestic setting have been changed after delivery, while more than three-fourths of them (78.7 per cent) add that their roles have not changed after the delivery. Among those whose roles have been changed, majority of them experience positive change in their role whereas their counterparts experience negative change.

Over one-third of them assume the role of rearing their infants; over one-fifth of them get their household chores done by maid servants and their mothers; close to one-fourth of the working women find it difficult to attend to office work and take care of their babies; one-fifth of them take their baby with them while going to their working place.

The study disclose that one-third of the respondents (34.0 per cent) suffer from anaemic disease, followed by more than one-fourth of them (26.4 per cent) having the problem of swelling in leg during pregnancy; 9.3 per cent of them have obesity; 8.7 per cent of them have high blood pressure and 7.9 per cent of them have albuminuria; 4.8 per cent of them have diabetes; 3.4 per cent of them have multiple pregnancy; 2.2 per cent of them have bleeding; the same proportion of them have respiratory problem and 1.1 per
cent of them have other diseases including brain fever, convulsion and low weight during their last pregnancy period.

Swelling in leg, high blood pressure, albuminuria and diabetes are high among the respondents of Kovalam HSC. Anaemia and high blood pressure are more among the respondents of Samithopu HSC. More than one-fourth of the respondents from North Thamaraikulam HSC have obesity. Close to one-third of them from Puvioor HSC have other health problems such as brain fever, convulsion, multiple pregnancy, bleeding, respiratory problem and low weight.

The majority of the respondents prefer private hospitals for taking treatment for their health problems during last pregnancy than their counterparts who are prefer Government hospital. The preference of hospital for treatment depends on their experience.

The proportion of the respondents who belongs to the age group of 24-29, have suffered from various health problems during last pregnancy rather than the proportion of their counterparts who belongs to other age groups.

The respondents who studied upto SSLC and HSC have suffered from various health problems during their last pregnancy period rather than their counterparts from other educational categories. It is therefore concluded that more educated respondents have health conscious than their less educated counterparts.

It is clear from the analysis that the proportion of all types of health problems is more among those in nuclear family than the proportion of those in joint family. The respondents in nuclear family have to do their household chores and take care of the elder child without the support of their mothers, mothers-in-law or maid servants. But the
respondents in joint family get the support from their family members, which reduce their work load and stress.

The respondents, who have 1-2 children, are suffering from various health problems than the others during the pregnancy period. Therefore it is concluded that increasing number of child birth gives experience to the respondents and it helps them to reduce their health problems during their pregnancy period. Moreover, it is evident from the data that the proportion of all types of health problems is more among those who follow the birth interval of below 3 years than that of their counterparts who follow the birth interval of above 3 years during their pregnancy period.

More than half of the respondents (57.0 per cent) had normal delivery and more than two-fifths of them (43.0 per cent) had caesarian during their last child birth. It is observed that a regular in-take of nutritious food, health checkups and periodical vaccination helped them for normal delivery.

It is found that close to two-fifths of the respondents (39.2 per cent) did not experience labour pain during their last delivery. Beside the respondents have other health problems such as cord around the neck (16.2 per cent), uterine inertia (13.8 per cent), excessive bleeding (9.2 percent), high blood pressure (8.3 per cent), malpresentation (4.6 per cent), respiratory problem (3.2 per cent) and other problems (5.5 per cent) including convulsion (fits), less blood (anaemic) and retained placenta. Among these health problems, lack of labour pain has been reported by a significant proportion of members (39.2). Moreover, 139 respondents have no health problem during their delivery period.
Three-fourths (75 per cent) of the respondents who delivered babies normally had the problem of excessive bleeding. As per the available medical reports in the Agastheswaram PHC, it is understood that normal delivery results in excessive bleeding, but it is not so among the caesarian cases. However women with high blood pressure may not have normal delivery. It is also reported that close to three-fourths (72.2 per cent) of them with high blood pressure had undergone caesarian than their counterparts who delivered normally. It is evident that high blood pressure of pregnant women does not pave way for normal delivery. That is perhaps the reason why the doctors always advice the pregnant women to keep their BP in normal state. More proportion of the respondents who delivered babies by caesarian did not experience labour pain (63.5), cord around the neck of baby (68.6), respiratory problem (100) and malpresentation (60.0). A majority (53.3 per cent) of them who delivered the babies normally had the problem of uterine inertia. It is therefore concluded that there is a significant relation between the respondents’ health problems during last delivery and their types of delivery, i.e. normal delivery and delivery by caesarian.

The proportion of respondents (59.4) who are unhealthy and undergone caesarian is more than thrice as much as the proportion (17.3) of their counterparts who are healthy and undergone caesarian. On the contrary, the proportion (82.7) of healthy respondents, who had normal delivery, is twice as much as the proportion of (40.6) their unhealthy counterparts who had normal delivery. It is evident from the statistical analysis that there is a significant relationship between the respondents’ health status during delivery and their types of delivery.
The study discloses that the excessive bleeding was more among the respondents (55 per cent) who delivered in government hospital than their counterparts who delivered in private hospitals (45 per cent). The proportion of those suffered from high blood pressure, absence of labour pain, cord around the neck, respiratory problem, uterine inertia, malpresentation and other problems at the time of delivery in private hospitals is more than the proportion of their counterparts suffered from those health problems at the time of delivery in government hospitals. However, the statistical analysis has proved that there is no significant relationship between the respondents’ health problems at the time of delivery and the types of hospital where they were treated. In other words, the types of hospital do not make impact on the health problems of the respondents during their delivery.

The proportion of respondents who have excessive bleeding and other health problems including convulsion, anaemia and retained placenta during last delivery period is more in the Santhaiadi HSC than the proportion of their counterparts in other HSCs. The proportion of those with high blood pressure, absence of labour pain, respiratory problem and malpresentation during last delivery is more in Kovalam HSC than the proportion of their counterparts with the same problems from other HSCs. The proportion of those suffer from uterine inertia during delivery is more in Samithoopu HSC area than the proportion of their counterparts from other HSC areas. Similarly the proportion of those having the complained of card around the neck of babies from South Thamaraikutlum HSC is more than the proportion of their counterparts from other HSCs.

More proportion of respondents suffering from health problems such as excessive bleeding, no labour pain, cord around the neck and other problems including convulsion
(fits), no blood (anaemic) and retained placenta during delivery period belong to the age group of 27-29 as compared to their counterparts from other age groups. On the other hand, more proportion of respondents suffering from high blood pressure, respiratory problem and uterine inertia belong to the age group of 24-26 as compared to their counterparts suffering from these health problems who belong to other age groups. It is thus evident that the respondents from 24-29 age groups have more health problems during their last delivery than their counterparts from other age groups.

The proportion of respondents, who studied upto high school and higher secondary level, has suffered from various health problems rather than the proportion of their counterparts, who completed degree or diploma, have suffered from those heath problems. This shows that the respondents who have high educational qualification, have acquired knowledge about health and taking steps to get rid of their health problems at the time of last delivery.

The study shows that the proportion of those in nuclear families who have suffered from all types of health problems during their last delivery time is more than thrice as much as the proportion of their counterparts in joint families. Though the respondents in nuclear families seemed to have suffered from several health problems as compared to their counterparts from the joint families, the statistical analysis confirms that their family type does not make impact on their health problems.

The data show that the proportion of respondents with two children is relatively higher than the proportion of those with one child in terms of their suffering from several health problems. The reason may perhaps be due to less birth interval in the case of
former. The statistical analysis of data has proved that leaving long birth interval (above 3 years) reduces the respondents’ health problems, whereas leaving short birth interval (less than 3 years) increases their health problems.

It is understood from the distribution of data that the respondents, who suffer from anaemia during pregnancy period, have confronted several health problems at the time of delivery. Therefore it may be concluded that anaemia is a root cause of a series of complications that the maternal women have experienced at the time of delivery. Secondly, obesity is also a serious problem that results in malpresentation at the time of delivery. It has been statistically proved that the health problems during last pregnancy have made an impact on the health problems during last delivery.

The data in the study delineate that the proportion of respondents having above normal weight babies ranges from 60-87. It is inferred from this that the birth weight of the babies delivered by a great majority of the respondents from different villages is above normal. However, in one of the HSC areas (Samithopu), more proportion of respondents delivered low birth weight babies (24.6) and normal birth weight babies (16.4) than their counterparts from other village HSC areas, who delivered low birth weight as well as normal weight babies. This is mainly because of birth interval of babies. It is therefore evident that there is a significant relationship between the birth interval of babies delivered by the respondents and their place of settlement. For instance, in Samithopu, the birth interval of children is considerably less as compared to the birth interval of children from other residential areas. This may the reason why more
proportion of children in Samithoppu HSC areas are under weight and normal weight than the proportion of their counterparts in other village HSC areas.

Close to two-thirds of the respondents (62.6 per cent) feed their babies with powder milk and the rest (37.4 per cent) of them do not do so. Some maternal women feed their babies with powder milk hoping that this milk besides breast milk would facilitate the growth of their babies. Some other feed their babies with powder milk at regular intervals because of inadequacy of breast milk. Some other completely relay on powder milk to feed their babies due to the lack of breast milk.

It is found that except eight respondents, all of them have got their babies immunized. The respondents who have not done it mainly due to the illness of their babies.

A significant proportion of the respondents’ (41) infants are suffering from cold. Less than one-fifth of (18.0 per cent) their infants have fever, 15.7 per cent of the them have diarrhea, 11.5 per cent of them are suffering from cough, 3.4 per cent of them have stomach disorder and constipation and 1.4 per cent of them have wheezing problem. The remaining 9.3 per cent of the infants are at present free from health problems. It is thus clear that cold is a common problem affecting the infants. There are several incidences that the babies have the problem of suffocation often mainly due to improper feeding and handling while the lactating mothers feeding them.

It is clear from the analysis that there are more number of cases is fever and diarrhea in Kovalam and Samithopu than those in other HSC areas. The reason is that Kovalam village is on the Kanyakumari coastal area where the basic communities such as
drinking water, drainage, public toilets etc. are not accessible to the fisher folk. Their houses are littered with sand and dust. The drinking water is not portable as it is salty and hard. The practice of drying the fish on the sore as well as in the front yard and back yard of the houses makes any strangers feel unpleasant and uncomfortable. In addition to this, the food practice, especially regular intakes of fish almost every day, may also contribute to their problems of fever and diarrhea. Similarly, most of the people in Samithopu are engaged in quarry work adjoining to their residential area. This results in air pollution caused by the dust of tiny particles coming out of the place of quarry work. Everywhere in the village one can notice the dust deposit which is mainly responsible for respiratory problems among the people, especially cold, cough, fever etc.

The study discloses that respondents who feed their infants with breast milk for 3-6 months have experienced that the babies contracted health problems such as cold (34.8 per cent), cough (30 per cent), fever (37 per cent), diarrhea (33.9 per cent) and the other health problems (37.5 per cent) including gastroenteritis, wheezing and constipation. On the other hand, those who feed their babies with breast milk for more than 9 months have experienced that the proportion of their babies affected by those health problems listed in the table is relatively less than their counterparts who fed with mother milk for less than 9 months. However the statistical test has proved that the duration of breast feeding has not made any significant impact on health problem of their infants.

A majority of infants fed with powder milk by their mothers are susceptible to cold (61.6 per cent), cough (63.4 per cent), fever (60.9 per cent) and diarrhea (76.8 per cent). Over one-third of them (37.5 per cent) have other problems such as stomach
disorder, constipation and wheezing. The study show that the proportion of infants (54.5) fed with breast milk are healthy, whereas the proportion of infants (64.4) fed with powder milk are unhealthy. It is thus understood that the health status of the infants depends on the types of milk given to them. The statistical analysis confirms that the types of milk given to the infants have made an impact on their health.

The proportion of infants suffering from cold (50), cough (56.5), fever (54), diarrhea (53.5) and other problems (76.9) is higher among those whose lactating mothers give them solid food items/fluid till 6-8 months than their counterparts given such food after 8 months. Normally educated mothers besides feeding children with breast milk start giving solid food items and fluids (juice/soup) after 6 months to boost their health. But it is not found among illiterate and uneducated mothers. The latter believe that giving solid food items after 6 months would cause stomach disorder among the infants (mostly in digestion). Similarly they believe that juice and vegetable soup would cause cold among the infants, but, according to pediatricians, it is not so. Some times the mothers feed their infants with unhygienic and malnourished food. Nevertheless the statistical analysis has proved that there is no significant relationship between the health problems of the infants and the period (month) in which solid food items/fluids are given to the infants. In other words the time of giving solid food/fluids to the infants does not make any impact on their health problem.

The data show a trend that the increase of birth interval results in decrease in the proportion of the infants suffering from various health problems. Therefore, over three-fourths of the infants whose birth interval is below 3 years have suffered from various
health problems. On the other hand, less than one-fourth of the infant whose birth interval is above 3 years have suffered from those diseases. This means that their birth interval influence their health problems.

It is understood from the study that a great majority of the respondents prefer private hospital for their infants’ general health problems, whereas over one-third of their counterparts prefer government hospital for their infants’ general health problems.

More than half of the infants (54.9 per cent) have suffers from primary complex, 19.0 per cent of them have skin problem, and 12.5 per cent of them have other problems (loose motion and chicken pox). Only 7.1 per cent of them have suffered from pneumonia and 2.7 per cent of them have jaundice. This is shows the proportion of infants suffering from primary complex is several times higher the proportion of those suffering from other health problems. It is important to know that a majority of the infants have suffered from primary complex. In Kovalam HSC area, the proportion of infants suffering from primary complex (30.7), fits (42.9), skin problem (22.9) and jaundice (20) is higher than their counterparts from other HSC areas. This may perhaps due to poor sanitary condition and environmental pollution in the coastal belt. Mostly the respondents in coastal settlement do not keep their environment clean because of their nature of occupation. Close to one-fourth of the infants in Kovalam HSC area has suffered from skin problem, due to the scorching sun.

The proportion of infants suffering from primary complex (29.6), fits (28.6), skin problem (42.9) and other health problems (42.8) (loose motion and chicken pox) is higher among the infants fed with breast milk from 3 to 6 months. The proportion of infants suffering from pneumonia (53.8) and jaundice (60) is more among those fed with breast
milk for less than 3 months. This clearly indicates that the less period of breast feeding leads to specific health problems among the infants. Moreover this does not facilitate the immunity among them to resist infections.

The study exhibits that on the whole close to two-thirds of infants who have feed with powder milk have various health problems whereas one-third of their counterparts not feed with powder milk have such problems. This is more or less reflected in the case of each health problem among the infants.

It is evident from the study that over one-third (36.4 per cent) of the infants, who were fed with solid food items and fluids between 4-6 months, have suffered from several specific health problems. A majority of them (54.3 per cent), who were fed with such items between 6-8 months, have suffered from those health problems. However, less than 10 per cent of those fed with such items after 8 months have suffered from those diseases. This shows there is no significant relationship between the infants who are fed with solid food items/fluids at different stages and their health problems. This means that feeding solid food items/fluids at different stages does not influence their health problems.

It is understood from the study that a great majority of the infants whose birth interval is below 3 years have suffered from certain health problems, whereas over one-fifth of their counterparts whose birth interval is above 3 years have suffered from those diseases. It is therefore confirmed by the statistical analysis that there is no significant relationship between the birth interval between the children and their specific health problem.

Over two-thirds (62 per cent) of the respondents prepare private hospital for treating their infants for their specific health problem, whereas over one-third of their
counterparts prepare government hospital for that purpose. But it is evident from the statistical analysis that there is no significant relationship between specific health problems of the infants and the types of hospital where they are treated.

It is inferred from the study that of the total infant suffering from primary complex, close to a majority of them (46.5 per cent) are affected by cold. Similarly of the total infant suffering from pneumonia, a majority of them (53.8 per cent) are affected by cold. This shows that cold is a cause of primary complex and pneumonia. In the same way, of the total infants reported for fits, a majority of them (50 per cent) had high fever. Normally, when an infant suffers from high fever continuously for several hours, that would result in fits. Of the infants suffering from jaundice, a significant proportion of them (40) reported for diarrhea.

On the whole the role of the respondents during the maternity period is influenced by the demographic variables. The advice of the doctors, village health nurses and elder family members are helpful to them during their maternity period. The health problems of the maternal women are associated with their delivery complications. They together have made an impact on their infants’ health and their birth weight. The duration of breast feeding, the time of introducing solid food items and preference of treatment given to the infants do not make any impact on the infants’ general as well as specific health problems. But there is a relationship between the infants’ general and specific health problems. It is evident that the infants’ health status depends on the maternal health status. moreover the practices and advices followed by the maternal women with respect of several health related aspects of them and their infants are also important factors responsible for promoting their health altogether. In addition to this, family type, birth
interval, intake of nutritious food by the maternal women and the time of introducing solid food items/fluids etc. to the infants also play a significant role in promoting the maternal as well as the infants’ health.

**Suggestions**

The suggestions to promote the health of maternal women and their infants are given as follows:

1. The Village Health Nurses should sensitize not only the maternal women of sample villages, but also the maternal women living in surrounding villages about the problems of early marriage and marriage within kin group.

2. They should also inform the maternal women about the health problems caused by the malnutrition, irregular health checkup and proper vaccination.

3. The Health personnel of this region should advise the maternal women about the minimum birth interval and its impact on their health and also the health of their infants.

4. The Medical Officers of Primary Health Centres of this area, should organize periodical health awareness programmes for the maternal women to make them understand about the consequences of pregnancy related health problems and delivery complications.

5. The Government should arrange for periodical monitoring of the functioning of Primary Health Centers of this region so that they would provide health service to the maternal women effectively.

6. The Health personnel of this region should advise the maternal women about the common and specific illness of the infants.
7. The Village Health Nurses should advice the lactating mother about the immunization schedule of the infants.

8. The Gynaecologist in Primary Health Centre should inform the maternal women about the importance of colostrums and breast feeding and its duration.

9. The couples should follow Small Family Norm for the benefit of their family, especially the maternal women and their infants.